

## Product manual

### 1, Introduction

#### Support and Service

Thanks for your choice for Minivet multi-axis aircraft, in order to make it convenient and correct for you to use our product, please read the manual carefully. If you face some difficulties when using products, please contact our distributor or Wingsland Service Center by email or telephone.

#### Wingsland service center:

Email address: [service@szsungreen.com](mailto:service@szsungreen.com)

Tel: 0086-0755-23123452



**Danger:** Incorrect operation may will casualties.



**Warning:** Incorrect operation will casualties or will harm human body.



**Caution:** Incorrect operation will cause harm with less possibility to user, but with a risk of being injured.

### 2, Before Using Product (read the instructions before first flight)

#### Disclaimer & Warning

**Attention please read this disclaimer carefully before starting your pilot experience. Thank you for your using Wingsland product, you hereby agree with and accept the terms of this disclaimer and it is believed that you have**

**read it seriously.**

- This product is not designed or suitable for people under age of 18.
- Please make sure that you are responsible for your any flight conduct and content, or any consequence caused by your flight while using this product. The product built-in autopilot system causes danger even if we have made its operation. Good practice before your flight with removing all propellers.
- Please fly in an open area/outdoor and far away from any obstacles and passengers. You agree to use this product in accordance with local regulations, terms and any applicable polices and guidelines. Ensure using this product only for the purposes that are proper.
- Any part of this disclaimer is subject to change without notice, please visit [www.szsungreen.com](http://www.szsungreen.com) for the latest version for your reference.
- This disclaimer is made in various versions of in different languages . In the event of divergence among different versions, the Chinese version shall prevail in China domestic area, the English shall prevail in other countries and areas.

### **Instructions & Cautions**

- Ensure using with genuine Wingsland accessories to get most efficiently flight experience.

- Please uninstall all propellers before your calibration or parameters setting.
- Ensure that you are familiar with your local laws, administrative rules and social habits and agree that you are solely responsible for your own conduct and content while you fly.
- Ensure to check all connections and every part of product is in normal condition before each flight..
- Stay away from obstacles, passengers, crowds, high-voltage line, other possible sources of electromagnetic interference and fragile goods.
- Check that the position of switches of Remote Controller is correctly set. Ensure the installation of propellers is correct.
- Check that the Remote Controller Battery, Intelligent Flight Battery, Display Screen Battery is fully charged.
- Do not fly near the areas existed magnetic or radio interference. For example, radio and TV tower, high-voltage lines, communication base station, radar instruments, etc.

## Battery Usage Notes

- Please keep the battery storage in out of the reach of children.
- Do not put the battery into the fire or store in high-temperature environment.

- Battery charging uses the genuine Charger supplied by Wingsland is demanded. Never charge batteries unattended. Check the battery condition during your charging.
- Attention please to the battery positive and negative. To avoid that the battery storage in contact with any conductor.
- Do not drop or strike battery. Do not use a swollen, leaky or damaged battery.
- If found the battery leakage, do not contact with skin and eyes, if you do contact, immediately rinse with plenty of water and seek medical help.
- The battery level will be effected when using in a low temperature or a high temperature.
- Please do not arbitrarily discard battery ,to dispose of the battery in accordance with local regulations when the battery is no longer in use. Discarding battery arbitrarily would cause a fire hazard, and may pollute the environment.
- Ensure that the usage of battery strictly abide by Wingsland User Manual.

### **Limitation of Liability**

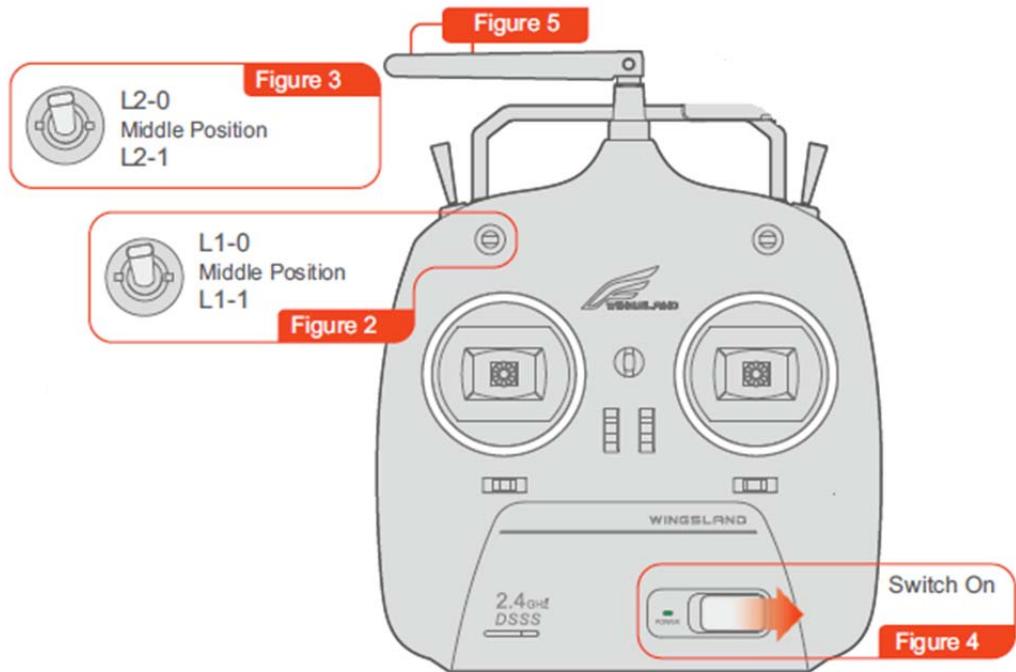
Wingsland accepts no liability for damages, injuries or any legal responsibilities incurred directly from the use of this product in the following conditions, and this limitation of liability applies to Wingsland suppliers, dealers and service provider:

- Any more you paid in amount for this product than the actual purchase price.
- Any costs and expenses with access to alternative goods, services or rights.
- Costs, expenses increased , loss caused by the data loss, data corruption or data interruption.
- Any loss caused by the violation of the provisions of local laws and regulations or the civil aviation administration laws.
- Any loss caused by the usage of product without abiding by the User Manual.
- Any loss cause by the age, physical and mental condition of the Operator who is not in the proper condition.
- Damages, injuries or any legal responsibilities caused by using the third party alternation products or fake Wingsland products.
- Any loss caused by improper use in a strong magnetic field or in the bad environmental conditions(such as in the temperature higher than 40 degrees or below 0 degrees Celsius, and in the wind over force 4, etc.)
- Any loss caused by Force Majeure,

### 3,Install Remote Controller Battery

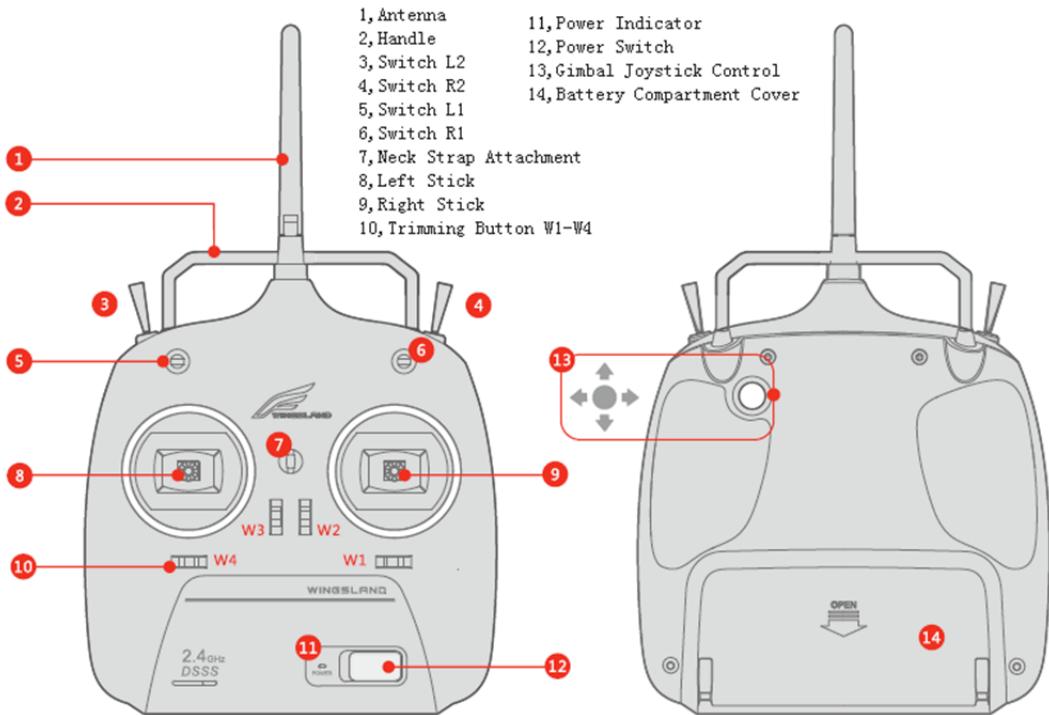
Set switch L1(Figure 2) and switch L2(Figure3) to the middle position.

Install 6s AA Alkaline Battery into the battery compartment on the back of the Remote Controller. Pay attention to positive and negative.



When using the remote controller, please put the antenna to figure 4 position (horizontal) to the left

#### 4, The Remote Controller component name



## 5, Remote Controller

Minivet remote controller works with 2.4G frequency and 10 channels, not only can control aircraft, but also gimbal and camera, thus user can finish all performance operation without leaving remote controller.

### (1) Install Battery

Remote controller uses 6 alkaline batteries. Open battery cap, fix them into remote controller, and cover back cap.

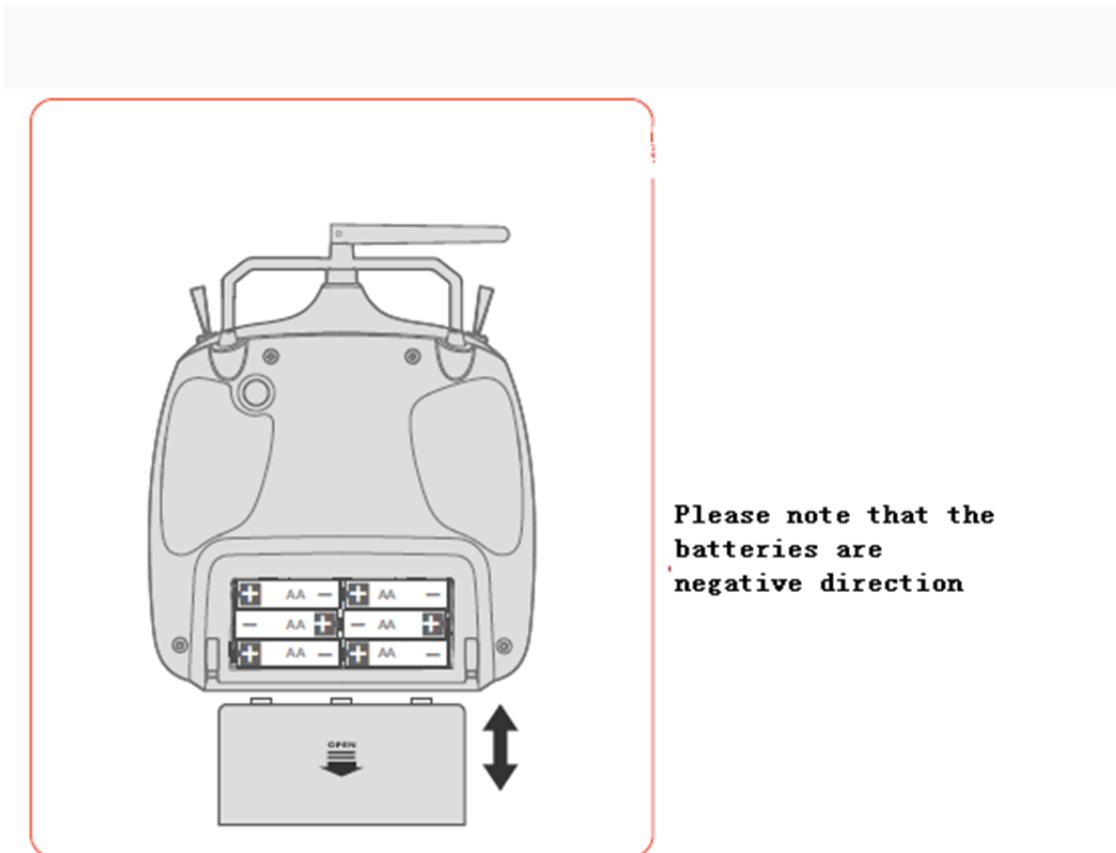
(picture shows how to open battery back cap and the effect of installing battery)



Warning: Use the same brand battery please.



Warning: Do not mix new and old batteries together.



## (2) Remote Controller Operation

### 1 Turning Remote Controller On and Off

On: Press Power Button to turn on the remote controller, red status LED will blink.

Off: Press Power Button to turn off the remote controller, red status LED goes out.



Warning: Remote controller beeps, over low voltage, alter a new battery

immediately.



Warning: Check positions of antennas and switches before turning on remote controller.



Warning: Turn on remote controller first before inserting flight battery, after taking out battery then turn off remote controller.

### L1 Mode Switches (3rd gear)

L1-Middle: GPS Stabilization Mode, 2 situations below

A In the outdoors with strong GPS signal (more than 6 satellites), GPS Stabilization Mode .

Bin the indoors with little GPS signal (less than 6 satellites), common Stabilization Mode .

L1-1 : RTH mode

L1-2: Manual Mode



Warning: Beginners do not use manual mode.

### L2 assistant mode switch (3rd gear)

L2-Middle: Turn off the assist mode

L2-1: Orientation Lock Mode

L2-2: Point of Interest Surrounding Mode

### (3)Gimbal control Joysticks

To be used control gimbal' pitch

#### (4) Trimming Button

Trimming Button is used to adjust left and right control stick middle point, when control stick middle point is calibrated by a computer, trimming adjustment is no need .When control stick middle point is tilt and out of control by computer, Trimming Button will work.

When aircraft works with GPS stabilization mode, hovering position will tilt from hovering point, adopts Trimming Button until aircraft does not tilt from hovering point. For example, if aircraft tilts from the head, Trimming Button should be adjusted backward.

Trimming Adjustment Max: any trimming adjustment channel has max value, when reaches this max value, remote controller will beep quickly twice..

Trimming Adjustment Middle Point: press trimming key into Middle Value, beep slowly twice, and it will not bring any effect on the responding control stick channel. When calibrating remote controller middle point, middle value must be needed.



Warning: When starting trimming adjustment, land aircraft, after adjusting, fly again to check effect.



Warning: After adjusting remote controller middle point through Trimming Button, lock it to avoid being touched.



Warning: Suggest user calibrating remote controller middle point by

computer, do not use Trimming Button to adjust middle point unless emergency conditions.

Trimming Button is locked default thus users will not touch it carelessly.

Trimming Button Unlock Methods:

A Make sure aircraft is powered off B Remote controller is turned off C Press down 2 Trimming Buttons simultaneously D Powered on remote controller E When hearing beeping sound twice ,unlock trimming adjustment is finished.

Key Pushing Methods in the picture

Trimming Button Lock Mode: finish the unlock trimming adjustment again



(5)Compliance Version

Remote controller has been set well frequency with receiver when resetting

from factory, but when changing remote controller or receiver, Compliance Version should start again.

Methods below:

A Aircraft is powered off B Remote controller is turned off C Press 2 Trimming Buttons simultaneously as the picture shows D Powered on remote controller E Once Power Status LED blinks quickly release the trimming button F Powered on aircraft G Remote controller Status LED stops blinking ,keep long light to finish compliance version.



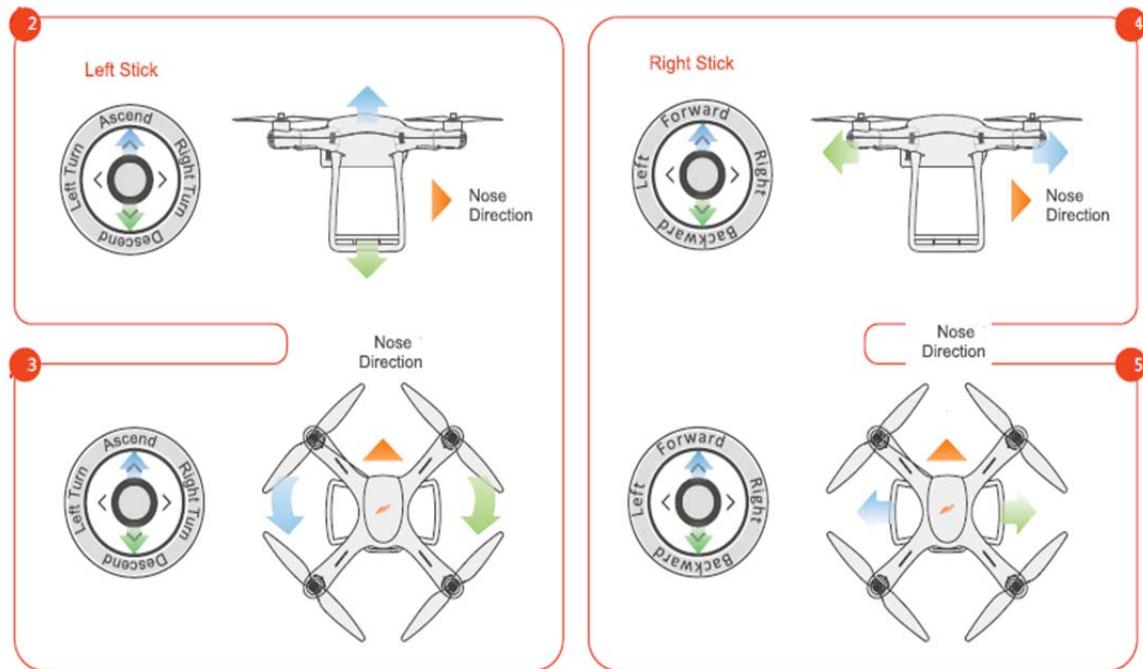
## (6)Operating Aircraft

Control can be set to Model2 or Model 1, and can be switched by buttons, default set is Model2. Here are 2 models operation methods.

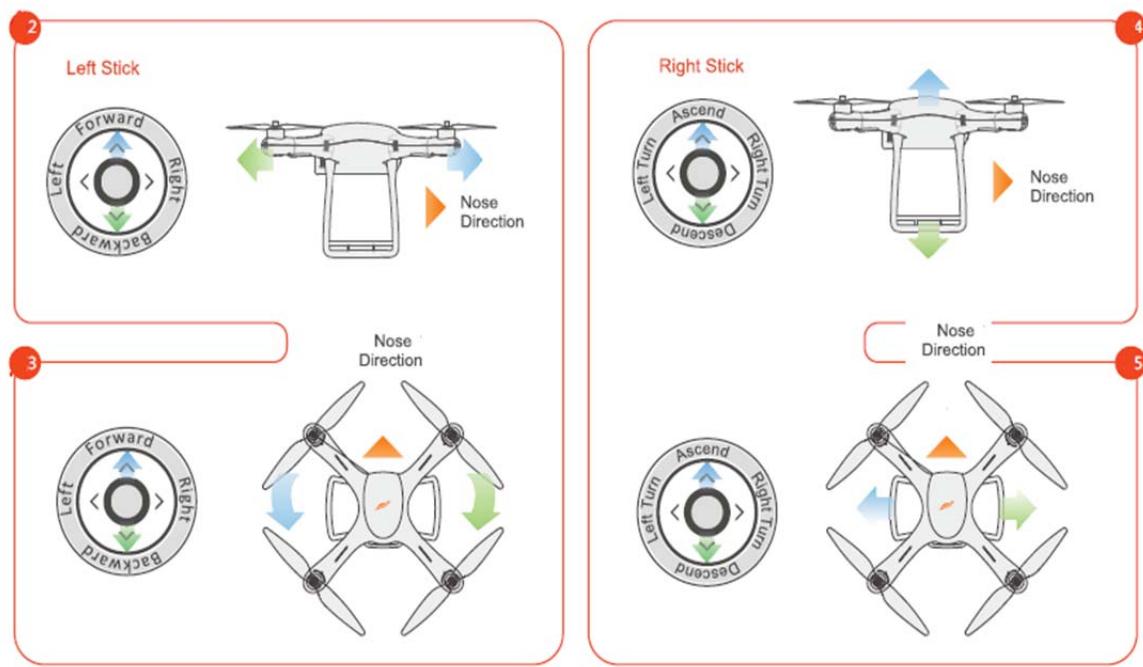
Quick start guide have model2 and model1, model1: right hand control accelerator up and down, left and right mean move to the left and right; left

hand controls up and down, forward and behind, left and right mean left spin and right spin.

### American hand



### Japan's hand





When the aircraft fixed-point hovering will deviate from the hovering, neutral point need to recalibrate the remote control



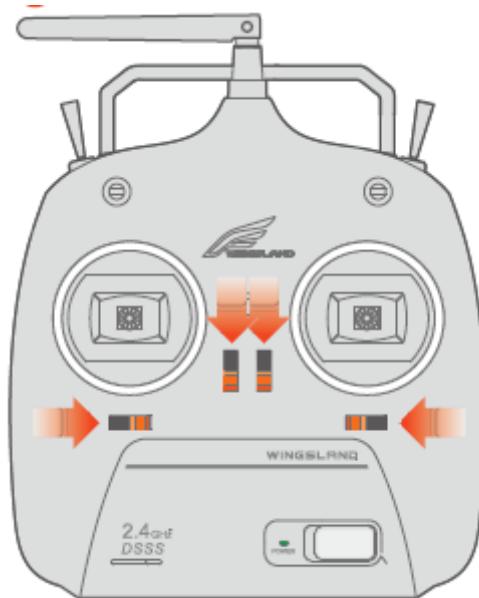
Using automatic return mode, must ensure that the return path and no obstacles around the landing site

#### (7) Remote Controller Operation Mode(model1 and model2)Switch

A Aircraft is powered off B Turn on remote controller C Press 4 trimming buttons simultaneously D A A beep shows Model2, twice beep show Model1



Caution: After switching models, suggest calibrating Throttle middle point by computer.



#### (8) Remote Controller Indicating Information

Icon arrange contents below

Power LED Status

Slid On   Work Mode   Quick Blink   Compliance Version

Sound Indicate

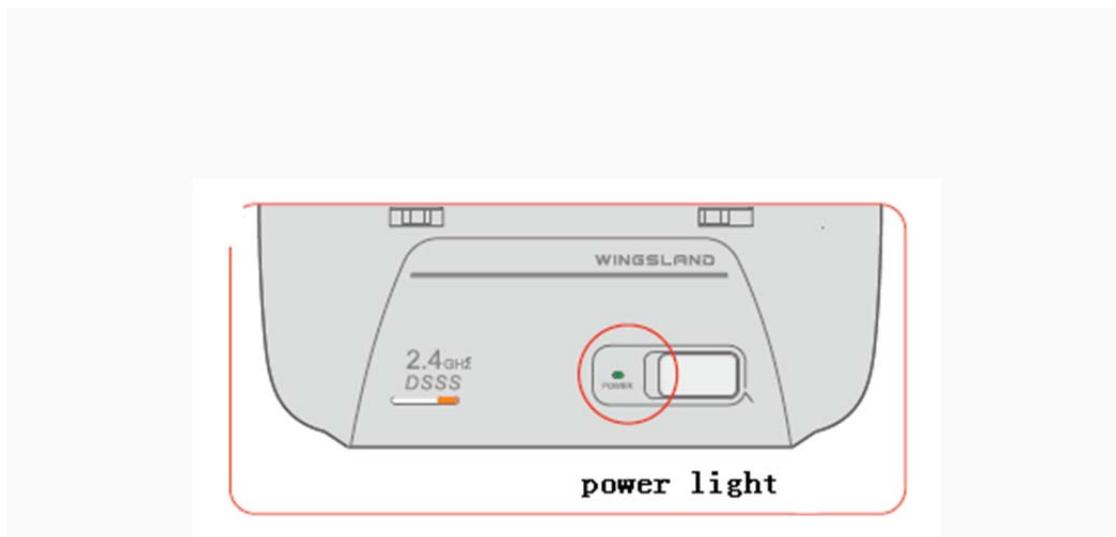
Powering on remote controller with beep, remote controller start working, continuous beeps, over low voltage of remote controller, battery need to be replaced.

Reduce trimming adjustment lock, a beep

Start trimming adjustment lock, a beep

Model2 and Model1 switches, a beep. Model2, beep twice, Model1.

Trimming adjustment, a beep trimming adjustment changes, quickly beep twice, and reach max value, slowly beep twice, trimming adjustment reach middle value



## Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

FCC RF warning statement: The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

€2200